Temporary friction band for friction test on south cable

Installing permanent cable band with overhead trolley

Last deck sub-assembly completed, South Korea

Wrapped replacement cable wire in China awaiting shipment

Steel jackets used for seismic retrofitting for Bent 7 at east approach span.

Seismic retrofitting at the east approach span includes steel jackets on Bent 9 columns and retrofitting of footings.

Seismic Retrofitting of the Existing Tacoma Narrows Bridge

A number of structural modifications or "retrofits" are being performed to the 1950 existing bridge to reduce its seismic vulnerability. Work includes upgrades to the towers and bents (piers), east approach span, and the west approach span.

While the west approach span work was completed in 2005, work continues on the tower cross-struts, top laterals and the east approach span. In February, work included installing steel jackets on the columns at the east approach span. The photo above shows columns already reinforced. Steel jackets were placed around the existing concrete columns and then filled with grout for strengthening. Seismic work is expected to be completed this year.

Public Outreach

- Conducted interview about tolls with student reporter for Tacoma Community College Challenger
- Hosted three project tours, including one to statewide Department of Ecology engineers
- Presented project to Tumwater Rotary Club
- Arranged interviews and site access for ongoing newspaper stories

Installation of cameras at tolling area

Toll Operations

February

- Completed Factory Acceptance Testing (FAT) in San Diego, CA
- Reviewed and commented on (FAT) testing documents, Operations Guide, Amended Final System Design Document (AFSDD) Chapter 8, Violation Processing System (VPS), and Commissioning Test Procedures
- Installed cameras, lights, sensors, and computers at toll plaza
- Continued writing Washington Administrative Codes (WACs)

March

- File Code Reviser 101 to initiate WAC process
- Complete Review of FAT documents, Operations Guide, Amended Final System Design Document Chapter 8 Violation Processing System, and Commissioning Test Procedures for review
- Continue installation of hardware on the lanes and Administrative Building

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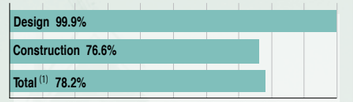
For more information about the bridge project, visit the TNB web site:
www.tacomanarrowsbridge.com

Tacoma Narrows Bridge Project

Monthly Progress Report

February 2006

Progress to Date
(% Complete)



(1) Weighted 7% Design progress and 93% Construction progress

New Bridge Statistics:

Bridge Length: 5,400 ft. *(overall)*

Main Span: 2,800 ft. *(tower to tower)*
69 pairs of suspender hangers per side

Side Span, East: 1,200 ft.
29 pairs of suspender hangers per side

Side Span, West: 1,400 ft.
34 pairs of suspender hangers per side

Suspended Roadway:
(deck panels, barriers, utilities)
- 53 million lbs.
- 46 deck sections
- 120-ft. by 78-ft. is size of average section

Towers: 510 ft. tall
- 8,500 cubic yds. concrete *(per tower)*
- 2.9 million lbs. of reinforcing steel *(both)*

Caissons (tower foundations, each):
- 85,000 tons *(total weight)*
- 6 million lbs. of reinforcing steel
- 40,500 cubic yds. concrete *(Tacoma)*
- 37,000 cubic yds. concrete *(Gig Harbor)*

Anchorages (each):
- 81 million lbs. *(total)*
- 20,000 cubic yds. concrete
- 1 million lbs. of reinforcing steel

Cable Diameter (each): 20.5 inches
- Cable contains 19 strands of 464 wires
- Total steel wires per cable is 8,816
- Each steel wire is the diameter of a pencil

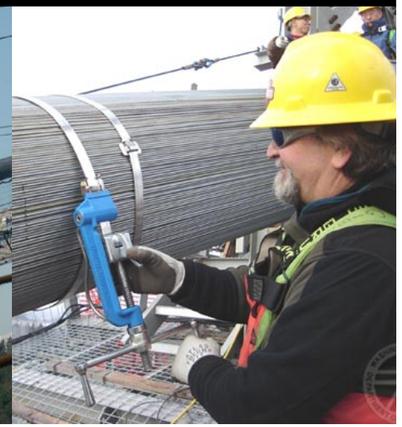
Structural Steel, Superstructure:
(Parts of the bridge above water)
35.5 million lbs.

Structural Steel, Suspension System:
(Cable wire and saddles atop towers)
12 million lbs.

New Parallel Bridge Completed: Early 2007

1950 Bridge (Retrofit) Completed: Early 2008

28,000 pound cable compacting machine at work on the south cable



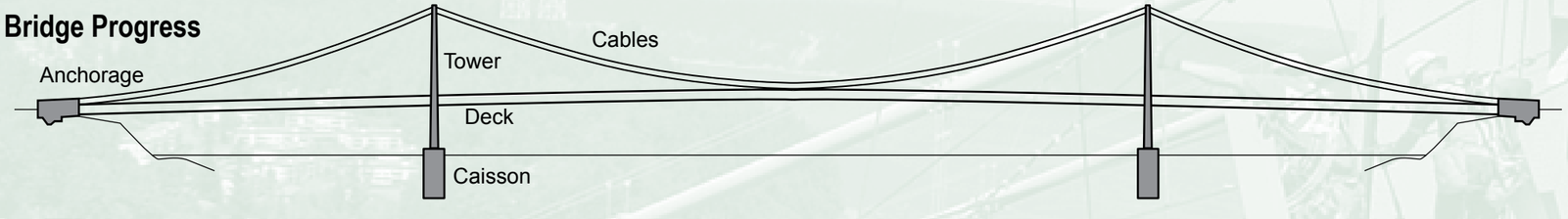
Ironworker Curtis Gibson uses a tensioner to secure a temporary steel band around the compacted cable.

Over eight thousand wires become one

Over eight thousand wires became one as the south cable was compacted in February. Four cable compactors were the most recent equipment to arrive on the project. Bright blue in color, these 28,000-pound pieces of equipment stood almost seven feet high and straddled the 19 strands of south cable wire which the project completed spinning in January. They compacted the strands into one tight, 20.5-inch suspension cable. To achieve those exact dimensions, crews coordinated the action of six hydraulic jaws. Each jaw can exert up to 10,000 pounds of pressure on the wire strands. The pieces that made contact with the wire are called pillow blocks, and were specifically designed for the suspension cable on this bridge. The roller sitting on top of the cable allowed the compactor to move smoothly along the cable. Once the cable reached the proper dimensions, iron-workers secured it with temporary steel bands. (See photo above.) The permanent cable bands, which will connect the future bridge deck to the suspension cable, are currently being installed.

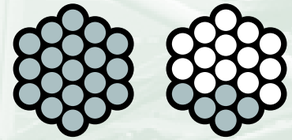
Dwarfing the man standing behind it, the cable compactor is one of four used to compact the 19 strands of the south cable into one main suspension cable. The compactor moves 80 feet per shift.

Bridge Progress



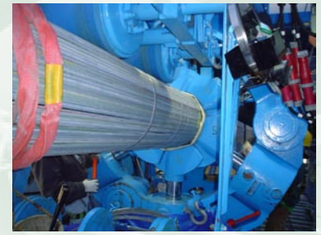
Main Cable Progress

Each circle represents a "strand," or 464 wires.



South Cable (Looking West)

North Cable



Cable compactor ready for deployment

Bridge Progress

Tacoma Narrows Constructors (TNC) began compaction of the south cable on February 2 and completed compaction operations February 21. Cable band installation began on the south cable on February 24. TNC is continuing to place concrete in the post-tension block-out areas in the towers.

TNC has removed the cable formers along the south catwalk that were used for holding the wire in the proper strands. The tram support frames were also removed, which were used to hold up the tram cable. TNC has also replaced the Tacoma and Gig Harbor tower cranes with tower cranes that reside on the top strut of the towers. This was done in order to facilitate installation of the deck sections.

TNC has received over 100 coils of new wire for the north cable. Cable spinning for the north cable is expected to resume by mid-March.

Bridge activities scheduled for March include:

- Install cable bands on the south cable
- Install suspender cables on the south cable
- Resume spinning wire on the north cable
- Continue ladder and stair access in the Tacoma tower

Milestone Outlook

Milestone	Contract	WSDOT Forecast	Months Ahead
Lift first bridge deck unit	07 May 06	16 Jun 06	-1.3
Complete superstructure joining of deck sections	03 Dec 06	30 Nov 06	0.1
Complete new bridge and open to traffic	02 Apr 07	02 Apr 07	0.0
Complete existing bridge modifications	26 Feb 08	26 Feb 08	0.0

Roadway/Roadside Progress

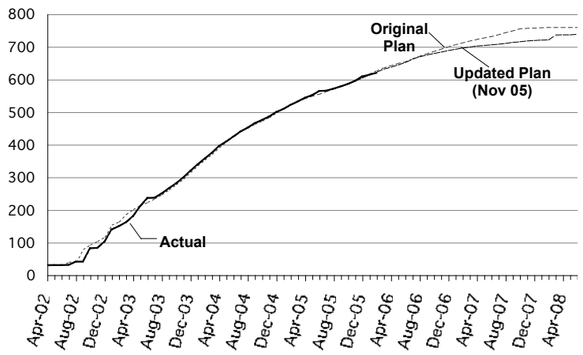
Roadway activities for the month of February included finishing most of the landscaping at Stormwater Pond C on the Gig Harbor side. At the Toll Plaza, TransCore is rapidly installing equipment in both the manual and express toll lanes. Cameras, lights, sensors and computers are all being installed, connected and tested.

Upcoming activities for March include preparation for the paving season, including continued cleaning of paving joints and possibly some small transition paving work. TransCore should finish installation of the equipment in both the manual and express toll lanes in March, and begin preparing for commissioning testing, currently scheduled for mid-April.

Financial Status

Project Cost Summary (in Millions)	Budgeted	Expended
Design-Build Contract	$615.0	$542.7
Toll System Contract	9.2	5.9
WSDOT Oversight	41.0	19.3
Contingencies Committed	13.0	11.3
Contingencies Remaining	41.7	
Phase I Dev. Cost (UIW)	40.5	39.8
Total	$760.4	$619.0
Total Expended/Total Cost	81.4%	

Project Cash Flow – Planned vs Actual Expenditures
April 2002 to June 2008 (Dollars in millions)



Contingency Funds Commitments

Right-of-Way/Other Settlements	**$5,963,681.30**
Design-Build Contract Executed Change Orders	
Community Driven Change Orders	$2,894,598.00
Planned/Known Change Orders	$1,845,577.98
Permit Driven Change Orders	$372,404.14
Design/Builder Initiated Change Orders	-$814,972.00
WSDOT Initiated Change Orders	$1,098,232.23
Design-Build Contract Sub-Total	**$5,395,840.35**
Toll System Supply & Installation Contract Executed Change Orders	
Community Driven Change Orders	$5,000.00
Planned/Known Change Orders	$178,839.00
Permit Driven Change Orders	$0.00
TransCore Initiated Change Orders	$0.00
WSDOT Initiated Change Orders	$233,636.00
Toll System Supply & Installation Contract Sub-Total	$417,475.00
SR 16 ITS Work (Ramp Meters, Cameras, Advisory Radio)	**$1,176,272.06**
Contingency Funds Commitment Total	**$12,953,268.71**

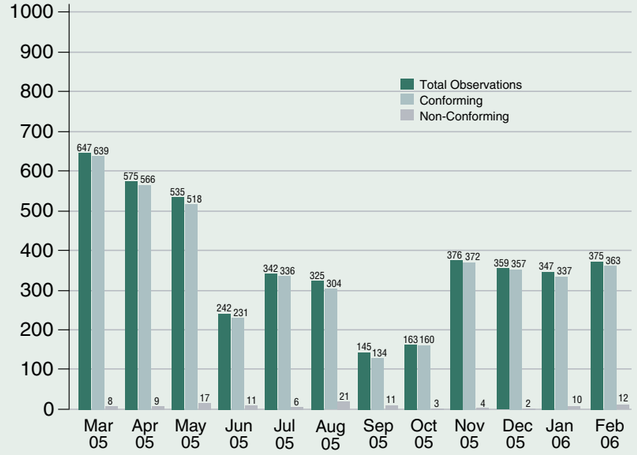
Ecology engineers

Environmental Performance

On February 23, the Tacoma Narrows Bridge Project hosted a tour for approximately 23 representatives of the Washington State Department of Ecology who were celebrating National Engineer's Week. The Ecology representatives were a group of environmental and civil engineers working in various Ecology programs and regions around the state. While the group's interest focused mainly on the engineering and construction aspects of the bridge, there was much discussion regarding the environmental aspect of building a project of this magnitude. A specific question had to do with permitting, and how permits were obtained. The TNB project had 27 permits and 853 permit conditions. The graphic shows but a few of the agencies which granted permits for the project.

Quality Performance

During February WSDOT staff completed the following audits:



WSDOT employs a Compliance Audit System to ensure that work on the project conforms to contract requirements. Compliance audits are conducted regularly in two areas: construction activities occurring in the field, and management policies and systems designed to ensure a quality product.

Compliance Audit System findings for the month of February are as follows:

- 39 individual audits of design-builders work activities
- 375 contractual requirements observed and verified for compliance
- 12 non-conformance findings
- 36 total outstanding non-conformance findings

The 36 outstanding non-conformances are within normal expectations for a project of this size. WSDOT continues to actively resolve the non-conformance issues with the design-builder. The overall audit findings continue to indicate the construction work is generally complying with contract requirements.

Safety Performance

2,137,021 hours worked with one lost-time accident.

February 06	Hours Worked	Recordable Cases	LWD Cases	Lost Workdays	Restricted Cases	Restricted Days	Fatalities
TNC	29,278	0	0	0	0	0	0
WSDOT	4,963	0	0	0	0	0	0
Total	34,241	0	0	0	0	0	0
Project to Date							
TNC	1,911,267	21	1	22	5	190	0
WSDOT	225,754	1	0	0	0	0	0
Total	2,137,021	22	1	22	5	190	0

There were no recordable accidents in February.